

## Abstract of the invention

### Headlight for a vehicle

[00039] The invention relates to a headlight 1 in particular based on the projection principle. The headlight has a semiconductor light source 4, which is arranged at the focal point of the reflector 2 and is connected to a cooling element 5. This cooling element 5 extends from the semiconductor light source 4 to the transparent lens 3, through which the light that is reflected by the reflector 2 is emitted, passes through the transparent lens 3, and projects beyond it. This arrangement of a semiconductor light source 4, a cooling element 5 and a transparent lens 3 ensures that the light source 4 is cooled effectively. In addition, the arrangement and the form of the cooling element 5 ensure that the cooling element 5 does not shadow, or only slightly shadows, the reflected light. This leads to a high light yield from the headlight 1 according to the invention, and to a long life.

Figure 1